Aviation Investigation Final Report

Location:	Loxahatchee, Florida	**Accident Number:**	ERA22FA160
Date & Time:	March 18, 2022, 14:32 Local	**Registration:**	N650AG
Aircraft:	MD HELICOPTERS INC 369	**Aircraft Damage:**	Substantial
Defining Event:	Controlled flight into terr/obj (CFIT)	**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot held a commercial pilot certificate with airplane ratings but did not possess a helicopter rating at the time of the accident. He did have a logbook endorsement for solo student flight with helicopters with the prohibition of carrying passengers. The passenger was a pilot-rated for single-engine land airplanes and did not have any helicopter experience.

According to automatic dependent surveillance-broadcast data, the helicopter departed an airport and flew north over swampy, state land. The data further showed the helicopter flying at altitudes from 25 to 75 ft above ground level (agl) and at speeds between 83 to 100 knots before colliding with high-voltage power lines. The helicopter came to rest in a swampy field about 250 ft from the power lines. The power lines were measured at 80 ft agl. Examination of the wreckage did not reveal any preimpact mechanical malfunctions. The circumstances of the accident are consistent with the pilot's failure to maintain clearance from power lines while maneuvering at low altitude.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain clearance from power lines while maneuvering at low altitude.

Findings

Aircraft	Altitude - Not attained/maintained
Personnel issues	Decision making/judgment - Pilot

Factual Information

History of Flight

Maneuvering	Controlled flight into terr/obj (CFIT) (Defining event)

HISTORY OF FLIGHT

On March 18, 2022, at 1432 eastern daylight time, an MD Helicopters 369HM, N650AG, was destroyed after it impacted power lines near Loxahatchee, Florida. The commercial pilot and pilot-rated passenger were fatally injured. The helicopter was operated by the commercial pilot under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a personal flight.

According to automatic dependent surveillance-broadcast (ADS-B) data obtained from the Federal Aviation Administration, the helicopter departed Antiquers Aerodrome (FD08), Delray Beach, Florida, about 1359 and flew north over swampy, state land. The data showed the helicopter flying at altitudes from 25 to 75 ft above ground level (agl), and at speeds between 83 to 100 knots, before colliding with high-voltage power lines. The power lines were measured at 80 ft agl. The data ended at 1432.

PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with ratings for airplane single-engine land, airplane single-engine sea, and instrument airplane. He did not possess a rotorcraft-helicopter rating at the time of the accident. He had a logbook endorsement for solo student flight in helicopters with the prohibition of carrying passengers. The commercial pilot was issued a FAA second-class medical certificate on October 28, 2021. He reported 1,200 hours of total flight experience at that time.

The pilot-rated passenger held a private pilot certificate with a rating for airplane single-engine land and an instrument rating. The pilot-rated passenger did not have any helicopter experience.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located in a swampy field. Power lines were observed on the ground near the wreckage. The wreckage path began where the power lines were located and continued for about 250 ft on a 270° magnetic course. The wreckage was laying on its right side and oriented about a 320° heading. The skids were separated from the helicopter, and all four main rotor blades were fractured off the hub. One main rotor blade could not be located in the swamp. Power line impression marks were found on the landing light housing and the skid brackets. The tail rotor was located about 30 ft from the main wreckage. Parts from the engine

cowling, tail section and engine were found scattered in the wreckage path. The instrument panel was intact. Examination of the engine and airframe did not reveal any preimpact mechanical malfunctions.

The maintenance logbooks could not be located.

MEDICAL AND PATHOLOGICAL INFORMATION

Toxicology testing performed by the FAA's Forensic Services Laboratory did not reveal any evidence of drugs or alcohol.

An autopsy was performed on the pilot by the Office of the Medical Examiner, District 15, West Palm Beach, Florida. The report listed the cause of death as multiple blunt force injuries.

Pilot Information

Certificate:	Commercial	**Age:**	65,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	October 28, 2021
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1200 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MD HELICOPTERS INC	**Registration:**	N650AG
Model/Series:	369 HM	**Aircraft Category:**	Helicopter
Year of Manufacture:	1971	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1090203M
Landing Gear Type:	Skid	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Turbo shaft
Airframe Total Time:		**Engine Manufacturer:**	Rolls Royce
ELT:	C126 installed, not activated	**Engine Model/Series:**	
Registered Owner:	On file	**Rated Power:**	
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KPBI,21 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	14:53 Local	**Direction from Accident Site:**	133°
Lowest Cloud Condition:	Few / 2500 ft AGL	**Visibility**	10 miles
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots /	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	140°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.04 inches Hg	**Temperature/Dew Point:**	29°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Delary Beach, FL (FD08)	**Type of Flight Plan Filed:**	None
Destination:	Delary Beach, FL (FD08)	**Type of Clearance:**	None
Departure Time:	13:58 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	26.853657,-80.30003(est)

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Rick Beckstrom; FAA/FSDO; South Florida, FL Jon Michael; Rolls_Royce; Indianapolis, IN Joan Gregoire; MD Helicopters; Mesa, AZ
Original Publish Date:	September 20, 2023
Last Revision Date:	
Investigation Class:	Class 3
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=104799